

DESCRIPTION AMENDMENTS

Rewrite amended paragraph [0041] to read as follows:

FIG. 14 illustrates feedback equalizer unit 94 of FIG. 13 in more detail. Producing the offset signal F signal input to summing amplifier 88 as functions of the G1, G2 and Z signals, feedback equalizer unit 94 suitably includes a latch 95, a pair of amplifiers 96 and 97 having gains controlled by filter control signals G1 and G2, and a summing amplifier 98. First data signal Z drives amplifier 97. The output of latch 95, representing the state of first data signal Z on each trailing edge of the CLK signal, provides an amplifier 96 input. Summing amplifier 98 generates offset signal F as a sum of outputs of amplifiers 96 and 97. Adaptation control circuit 92 of FIG. 13 suitably implements, for example, the following adaptation algorithm:

$$\underline{G2_{n+2} = G2_n + \Delta_+ \text{ when } S_{n-1} = Z_{n-3}, \text{ else } G2_{n+1} + 2 = G2_n - \Delta_-}$$

$$\underline{G2_{n+1} = G2_n + \Delta_+ \text{ when } S_{n-1} = Z_{n-3}, \text{ else } G2_{n+1} + 2 = G2_n - \Delta_-}$$

where

G1_n is a magnitude of the first filter control signal during an nth sampling clock signal cycle,

G1_{n+1} is a magnitude of the first filter control signal during an (n+1)th sampling clock signal cycle,

G2_n is a magnitude of the second filter control signal during the nth sampling clock signal cycle,

G2_{n+1} is a magnitude of the second filter control signal during the (n+1)th sampling clock signal cycle,

Z_{n-2} is a state of the first data signal following an (n-2)th trailing edge of the sampling clock signal

Z_{n-3} is a state of the first data signal following an (n-3)th trailing edge of the sampling clock signal,

S_{n-1} is a state of the second data signal following an (n-1)th trailing edge of the sampling clock signal, and

Δ₊, and Δ₋ are constants.

Adaptation control circuit 92 increases $G1$ when S_{n-1} is of the same sign as Z_{n-2} because this indicates that signal X is under-compensated. Otherwise, adaptation control circuit 92 considers signal X to be over-compensated and decreases $G1$. Similarly, adaptation control circuit 92 increases $G2$ when S_{n-1} is of the same sign as Z_{n-3} because this indicates that signal X is under-compensated. Otherwise, adaptation control circuit 92 considers signal X to be over-compensated and decreases $G2$.